

XXV International Baldin Seminar on High Energy Physics Problems
"Relativistic Nuclear Physics and Quantum Chromodynamics"



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on High Energy Physics Problems
Relativistic Nuclear Physics & Quantum Chromodynamics
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Non-linear processes in electron-laser and photon-laser interactions

Friday, 22 September 2023 16:30 (20 minutes)

We discuss some new results in envisaged LUXE experiment aims at studying strong-field QED in electron-laser and photon-laser interactions, with the 16.5 GeV electron beam of the European XFEL and a laser beam with power of up to 350 TW.

We show some results for the non-linear Breit-Wheeler and Compton processes. In particular, we show prediction for electron-positron production and discuss polarization observables in such processes.

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Session Classification: Parallel: Polarization phenomena, spin physics